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United States General Accounting Office

GAO

Report to the Honorable
William Proxmire
United States Senate

September 1986

POSTAL SERVICE

Postage Charges in Two Geographic Areas Were Accurate Most of the Time

18

GAO/GGD-86-127

GAO

United States
General Accounting Office
Washington, D.C. 20548

General Government Division
B-223282

September 30, 1986

The Honorable William Proxmire
United States Senate

Dear Senator Proxmire:

In a February 5, 1985, letter, you asked us to conduct a nationwide, statistical survey to determine the Postal Service's error rate in computing postage on individual letters and parcels that must be weighed to determine correct postage. You were concerned about allegations that the Service overcharged postal customers in a particular metropolitan area for mailing letters and parcels.

We subsequently met with a representative of your office and discussed the extensive time and resources that would be required for a nationwide survey. Your representative agreed that we would conduct a statistical survey in two geographic areas—Washington, D.C., and one other—rather than conducting a nationwide survey. We selected the Cincinnati/Dayton, Ohio, area as the additional geographic area. We concentrated our work on internal controls and procedures used by the Service to insure that postal customers are charged only established rates to mail letters and parcels. For the two geographic areas, we sought to determine the nature and extent of postage errors, if any, and whether scale maintenance procedures affected the accuracy of postage paid by postal customers.

Based on statistical sampling of mail in the two geographic areas, we found that postage calculations were accurate most of the time. We sampled 3,001 pieces of mail in the Washington, D.C., area. We found that individual mailers were incorrectly charged for postage 3.4 percent of the time when they presented a letter or parcel to a window clerk for mailing. Of the 2,924 pieces of mail we sampled in the Cincinnati/Dayton, Ohio, area, individual mailers were charged the incorrect postage 1.9 percent of the time. The incorrect postage—about evenly split between overcharges and undercharges—resulted from errors by window clerks who used incorrect rate information, misread scales, or used inaccurate scales. Additionally, we found that some postage errors were caused by postal customers who affixed too much postage to their mail before presenting it to a window clerk.

We tested both electronic and mechanical scales for accuracy and found that 25 of the 198 tested, or about 13 percent, were inaccurate by the Service's maintenance standards. However, inaccurate scales may not

always cause errors in the postage charged. To affect the accuracy of postage calculations, the scale error as it relates to the weight of the mail must be sufficient to cause the selection of the wrong weight range allowed by the rate schedule.

To ensure greater accuracy in retail operations, the Service is replacing older scales with new electronic scales. Our tests showed that electronic scales were more accurate than mechanical scales. Also, the Service has purchased certified test weights for each retail office to test scales daily for accuracy. As of May 1986, about 90 percent of the retail offices had received the test weights. Scale accuracy should be improved as a result of these actions. The results of our work are discussed in detail in appendix I.

In commenting on our draft report, the Service agreed that some postage errors do occur and stated that it is striving to reduce their frequency. The Service mentioned several measures under way, some of which we note in our report, that it feels should further increase the accuracy of postage calculations. The Service's comments, including the specific actions being taken by the Service, are in appendix II.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issuance date. At that time, we will send copies to the Postmaster General; the Director, Office of Management and Budget; and other interested parties.

Sincerely yours,

W. J. Anderson

William J. Anderson
Assistant Comptroller General

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Accuracy of Postage Calculations in Two Geographic Areas

Introduction

The United States Postal Service provides many types of mailing services to the public, and virtually every person is affected by the postal system. Because of the complexity of postal rate information, individuals generally rely on the Service to charge them the correct amount of postage to mail letters and parcels. The postal rate schedules contain an immense variety of fees and mailing information for each mail classification.

The Service has categorized mail by class and developed postage rates for each mail classification. There are five domestic mail classifications—First-, second-, third-, and fourth-class and Express Mail. Within each of these mail classifications, there are many subclasses. For example, under the first-class category, there are subclasses for post cards, letters, and parcels (priority mail). All letter mail receives the first-class rate when mailed by individual customers. However, a parcel may be mailed in several ways depending on its weight.

Any mailable parcel could qualify for first-class rates, with a few exceptions. Parcels that are not sent as First-Class Mail and which weigh less than 16 ounces are sent at third-class rates, unless there is a lower fourth-class rate for which the mail could qualify. Fourth-class rates are available for parcels weighing at least 1 pound that are not mailed at first-class rates. In addition, for expedited service, several Express Mail service options are available. Consumers may also elect to use one of the special services available at an additional charge. Individuals do not use the second-class rates. These rates are designed for mailers of magazines, newspapers, and periodicals, including nonprofit and classroom publications. Foreign mail may be sent using international rates and fees.

Objectives, Scope, and Methodology

Our objective was to obtain an indication of the nature, extent, and causes of any Postal Service errors in calculating postage costs for individual letters and parcels.

In discussions with the requester's office, we agreed to limit our work to two geographic areas, since a reasonable nationwide sampling error would be costly to obtain. Our work concentrated on internal controls and procedures used by the Service to ensure that postal patrons pay only established rates to mail letters and parcels. In performing this review, we sought to

- determine the nature and extent of any postage errors in the two geographic areas and, where possible,
- determine whether errors were caused by window clerks or by inaccurate scales.

To determine the nature and extent of postage errors, we statistically sampled postage calculations in two areas—the Washington, D.C., area and the Cincinnati/Dayton, Ohio, area. Postal facilities in these areas, 21 in the Washington, D.C., area and 24 in the Cincinnati/Dayton area, were statistically selected based on fiscal year 1984 postal revenue. The probability of being selected was greater for facilities with the largest revenues. The Washington, D.C., sampling area was comprised of the areas served by the District of Columbia Post Office and the Northern Virginia and Prince Georges (Maryland) Management Sectional Centers (MSCs). The other sampled area included the areas served by the Cincinnati and Dayton, Ohio, MSCs. We weighed and computed the postage for 3,001 pieces of mail in the Washington, D.C., area, and 2,924 pieces of mail in the Cincinnati/Dayton area. We compared our computations with postage affixed to the mail pieces. The sampling of mail was limited to mail accepted by window clerks. The sampled mail did not include second-class mail, COD, registered and insured mail because these types of mail require special or additional acceptance procedures. The sample results, which are statistically weighted, are representative only of the geographic area included in each sample for similar mail accepted by window clerks. Both samples have a 95 percent confidence level with a plus or minus 5 percent sampling error. The selection of the two geographic areas was based solely on the availability of GAO staff to perform the review.

At all four MSCs and the District of Columbia Post Office, we interviewed plant maintenance staff to determine whether internal controls and procedures were in place to ensure that scales were accurate. We tested selected internal controls and procedures and determined whether scales at sites visited were approved for use. We reviewed applicable maintenance bulletins, manuals, and instructions. With the use of certified test weights, we performed limited independent testing of scales during our statistical sampling of letters and parcels. We also contacted officials at the National Bureau of Standards to obtain information on standards for postal scales.

Our review was performed from August 1985 to December 1985 in accordance with generally accepted government audit standards.

Some Errors Were Made in Postage Calculations

Of the 5,925 pieces of mail sampled, we determined that 275 pieces did not have correct postage. Of this total, errors on 158 pieces of mail (57 percent) were caused by the Service's window clerks. The remaining 117 pieces of mail with errors (43 percent) were caused by postal customers who affixed too much postage to letters and parcels before presenting the mail to a window clerk. Of the 3,001 pieces in the Washington, D.C., area sample, 103 pieces or 3.4 percent had postage errors caused by window clerks. The overcharges by window clerks amounted to $25.02 for 53 pieces of mail. Undercharges totalled $20.93 for 50 pieces of mail. In the Cincinnati/Dayton area, we determined that of the 2,924 pieces of mail sampled, 55 pieces, or 1.9 percent, had postage errors caused by window clerks. Overcharges by clerks were $5.35 for 23 pieces of mail; undercharges totalled $6.34 for 32 pieces of mail.

We analyzed differences in postage calculations (by us and by window clerks) to ascertain the causes of the errors. We were not able to isolate a reason for the difference in all of the postage calculations. However, where we could do so, our analyses showed that the differences were due to the fact that window clerks misread scales, made errors in using rate information, or used scales that were not in tolerance ranges prescribed by the Service's maintenance manuals.

Postal Service Errors

Table I.1 summarizes the nature and extent of errors attributable solely to postal window clerks.

Table I.1: Nature and Extent of Postal Service Errors (Numbers of Pieces of Mail)

	Washington, D.C. Area		Cincinnati/Dayton Area	
Nature of errors	Over-charges	Under-charges	Over-charges	Under-charges
Clerk errors relating to incorrect rate information	6	14	16	29
Errors caused by clerks misreading or using inaccurate scales	24	25	7	3
Unknown[a]	23	11	0	0
Total	**53**	**50**	**23**	**32**

[a]We found some differences in the Service's postage calculations that did not fit into any of the error categories above. We analyzed the characteristics (class, destinating zip code, weight, etc.) of each of these pieces of mail to determine the reason for the difference. In doing so, we reviewed the official postal rate charts to determine if the Service's charge appeared on the rate charts for any mail class and near the weight of the letter or parcel. We did not find the Service's charge on the official postal rate charts for these pieces of mail. We also analyzed the differences between the postage paid and our calculations of postage. We compared these differences to the amount the Service charges for fees for special services and surcharges. None of the differences appeared to be related to fees for special services and surcharges. It is possible that some of these differences may have been caused by clerks inadvertently setting postage meter strips for the wrong amount while charging customers the correct amount.

Description of Postal Service Errors by Type

The following is a description of the three most frequently occurring types of errors attributable to the Service's window clerks. An example of each error and the reason that we determined it to be an error is provided.

Based Charges on Incorrect Weight

The weight of a letter or parcel is an important factor in determining mailing costs. When an inaccurate scale is used to weigh mail, an error in postage calculations may occur. Errors in postage may also result from clerks misreading scales. During our sampling, we observed some window clerks using scales that were out of tolerance or difficult to read. We found 59 errors caused by clerks misreading scales or using inaccurate scales.

- First-class postage rates are 22 cents for the first ounce and 17 cents for each additional ounce (or fraction of an ounce) up to 12 ounces. Thus, if a letter weighed 1.5 ounces, the correct postage would be 39 cents. However, we found instances where customers were charged 56 cents for mailing a letter at this weight. Clerks also undercharged customers in some instances. For example, a letter weighing 4.3 ounces was accepted for mailing with only 73 cents postage. The correct amount is 90 cents. Errors of this type occurred because the clerks used scales that were inaccurate or misread the scales.

Intra-Bulk Mail Center Discount Not Given

Fourth-class parcel post mail is eligible for a 16-cent discount when mailed within the same Bulk Mail Center (BMC)[1] as its destination. We found 18 instances where clerks did not give the discount when parcels were eligible for it.

- For example, parcels mailed from ZIP Code Prefix 454 in the Dayton, Ohio, sampling area are eligible for the 16 cent intra-BMC discount for destinations in ZIP Code Prefix 456. A window clerk charged a customer $1.41 to mail a fourth-class parcel that weighed 1 pound and 7.9 ounces from a post office with ZIP Code Prefix 454 to a destination in ZIP Code Prefix 456. The correct postage for this parcel was $1.25, but the clerk did not subtract the 16 cent intra-BMC discount.

Mail Accepted With Insufficient Postage

Sometimes postal customers present mail to a window clerk for mailing with a stamp(s) or a postage meter strip already affixed on the mail. In some instances, the window clerk(s) accepted the mail without verifying the accuracy of the postage. Our examination of mail handled by clerks showed that 26 pieces of mail having insufficient postage were accepted by window clerks in the Cincinnati/Dayton area. The Service lost $4.20 in revenue on these pieces of mail.

- A customer in the Dayton, Ohio, area gave a window clerk a piece of mail marked first-class which had $1.75 postage already affixed. The window clerk accepted the item for mailing. We weighed this piece of mail on an electronic scale and determined that it weighed 10.3 ounces. The official Postal Service rate chart shows that First-Class Mail weighing more than 10 and less than 11 ounces should cost $1.92 for all destinations within the United States.

Scale Maintenance

Postal scales are precision instruments that must be properly maintained to ensure accuracy throughout their entire range. Only scales that are accurate should be used by window clerks to weigh letters and parcels. Several types of mechanical and electronic scales (rate classifiers) are being used by window clerks. Electronic scales automatically compute weight and postage when the mail class is selected. All mechanical scales show weight information; however, some mechanical scales may also compute postage. Postal regulations require that window clerks zero balance and test each scale using certified test weights at the start

[1] A mail processing plant for distribution of second- and third-class mail in bulk form and fourth-class mail in piece and bulk form.

of each day. In addition to these daily checks by window clerks, each scale is required to be checked for accuracy at least annually.

Zero Balancing Scales

Zero balancing means making sure that the scale reads zero at the zero indicator on the scale when no mail is on the scale's weighing platform. The Service requires daily zero balancing because it prevents some errors but does not require that a record of daily zero balancing be maintained. Therefore we could not determine whether all scales were zero balanced daily as required by postal regulations. Electronic scales show weights in a digital display and maintain a zero tracking when no mail is on its weighing platform.

Checking Scales for Accuracy With Certified Test Weights

Postal regulations require that scales used at retail windows in post offices be checked for accuracy using certified test weights. Scales are to be checked daily and calibrated at least annually using certified test weights. Starting in the fall of 1985, small sets of certified test weights (a 5-pound weight and a 1-ounce weight) were being sent to post offices and contract stations[2] so that window clerks could check scales daily. As of May 1986, about 90 percent of all retail offices had received their set of certified weights. The maintenance office in each MSC has overall responsibility for the annual check, which should be done in accordance with criteria described in several maintenance bulletins on testing of scales used to rate single pieces of mail. If a scale is checked for accuracy under these instructions and is found to be not in compliance, it should either be calibrated and repaired or be taken out of service.

The small sets of test weights are useful tools for providing local managers and window clerks with a means of insuring scale accuracy and thus correcting any deficiencies that can occur between the required annual testings. The use of these small sets of certified test weights is not intended to replace the annual calibration checks. Calibration checks are still necessary because certified test weights other than a 5-pound and 1-ounce weight may be required to perform calibration checks throughout the 70-pound range of most postal scales.

As we were completing our mail samplings, the certified test weights were still being mailed to post offices and contract stations in the geographic areas we sampled. As a result, we could not determine whether they were being used on a daily basis as required.

[2]Postal units located in businesses and operated under a contract by non-Postal Service personnel.

Scale Accuracy

At each of the post offices and contract stations included in our mail samples, we verified the accuracy of all scales used by window clerks. In testing scales for accuracy, we used certified test weights. The results of our tests showed that 14 of the 45 offices had at least one scale that did not weigh according to the Service's standards. The Service's standards are based on standards for postal scales established by the National Bureau of Standards.

In total, we tested 198 scales, both electronic and mechanical. Two of the 61 electronic scales did not meet prescribed tolerance ranges and could result in incorrect postage being charged. One scale registered 4 pounds 13.6 ounces when tested with a 5 pound test weight. Another scale registered 5 pounds 2.5 ounces while weighing a 5 pound test weight. Both scales have since been replaced with newer electronic scales which we have determined to meet prescribed tolerances.

Mechanical scales were more frequently inaccurate. In total, we found 23 of the 137 mechanical scales that we tested were not balanced exactly according to standards. Sixteen scales weighed lighter than the test weights, thus favoring the customer in some instances, while five scales weighed heavier than the test weights tending to favor the Service. Two scales weighed erratically; at different times, they weighed both heavier and lighter than the test weights. In most cases, inaccurate scales were taken out of service after we tested them.

Our review of the records of annual scale checks in the MSCs showed that they were incomplete. In some instances, the records indicated that testing was not done. However, when records indicated that testing had been done, we could not determine whether testing was done according to maintenance requirements. Also, maintenance managers had no assurance that all scales had been tested.

Inaccurate Scales May Not Always Cause Postage Errors

When an inaccurate scale is used, it does not necessarily mean that the accuracy of postage calculations will be affected all of the time. To affect the accuracy of postage calculations, the scale error as it relates to the weight of the mail must be sufficient to cause the selection of the wrong weight range allowed by the rate schedule. For example, the weight range for fourth-class parcel post zone rated mail is 1 pound. A scale error which does not change the weight of a parcel beyond or below the allowable range would not affect the rate charged the customer.

Scale Improvements Are Being Made

The Service has recognized the need for improving the efficiency and effectiveness of retail window operations and is taking steps to achieve this goal. The Service's window automation program should enhance the accuracy and efficiency of retail postal operations utilizing computer technology.

The retail window automation program is a nationwide campaign by the Service to modernize retail services by installing electronic equipment. Under this program, the Service intends to install new electronic rate classifiers to replace the older scales now being used in retail windows. This transition has already begun and is expected to take several more years. All post offices should have electronic scales when the program is completed in 1990. The conversion to electronic rate classifiers should result in greater accuracy, increased productivity, and improved customer satisfaction. Currently, two types of advanced electronic rate classifiers are being used in selected post offices. Both are microcomputer terminals that combine the functions of an electronic scale, a programmable calculator, and an information screen that allows customers to monitor their transactions. The systems also allow speedy record-keeping for the Service.

Conclusions

Based on statistical sampling of mail in two geographic areas, we found that postage calculations were accurate most of the time. We determined that postage errors attributable to the Service occurred 1.9 percent of the time in the Cincinnati/Dayton area and 3.4 percent of the time in the Washington, D.C., area. These errors occurred because postage was based on incorrect weight and rate information. Additionally, we found that some postage errors were caused by postal customers who affixed too much postage to their mail before presenting it to a window clerk.

The Service has taken steps to improve the accuracy of postage calculations. The installation of electronic rate classifiers should result in increased accuracy in rating individual pieces of mail as well as increased efficiency in serving postal customers. Now that certified test weights are available at most retail postal windows, including contract stations, scale accuracy should improve.

Comments From the United States Postal Service

THE POSTMASTER GENERAL
Washington, DC 20260-0010

July 31, 1986

Dear Mr. Anderson:

This refers to your draft report entitled Postage Charges in Two Geographic Areas Were Accurate Most of the Time.

The report finds that postage calculations at the offices you visited were accurate most of the time, but in a small percentage of transactions there were errors, about evenly split between overcharges and undercharges. These errors were caused by window clerks who used incorrect rate information, misread scales, or used inaccurate scales.

We know such errors do occur and we are striving to reduce their frequency. As the report notes, we are replacing older mechanical scales with more accurate electronic ones and are distributing diagnostic test weights for the daily testing of all scales. We are also issuing new instructions to post offices emphasizing the need for accurate mail classification and rating and for the daily balancing of scales. We believe these measures will further increase the accuracy of our postage calculations.

Thank you for the opportunity to comment on your report.

Sincerely,

Albert V. Casey

Mr. William J. Anderson
Director
General Government Division
United States General Accounting
Office
Washington, D.C. 20548-0001

Request Letter

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United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, DC 20510

February 5, 1985

Mr. Charles Bowsher
Comptroller General
General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

Dear Mr. Bowsher:

Every day the Postal Service must weigh and calculate the correct postage for millions of pieces of mail. Recently, the Milwaukee Journal conducted a test and found that in one out of six cases the Postal Service had overcharged its patrons.

If this pattern holds nationwide, the consumer could be paying millions of dollars in overcharges. I request that the General Accounting Office conduct a nationwide, statistical survey to determine the Postal Service's error rate. This survey should focus on those mail classes — first class and parcel post — most often used by the average citizen.

If errors are found, the survey should note the cause — inaccurate scales or human error — and whether any pattern emerges. I would appreciate your recommendations about what the Postal Service should do to reduce these errors to the minimum.

Thank you for your assistance. If you staff has any questions, please have them call Bob Mauney at 224-5653.

Warmest regards.

Sincerely,

William Proxmire, U. S. S.

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